

IN THE CLAIMS

Please cancel Claims 2, 19, 36, 53, 67, and 81, without prejudice or disclaimer of the subject matter presented therein.

Please amend Claims 1, 3-8, 18, 20-25, 27, 30, 34, 35, 37-42, 52, 54-60, 62-66, 68-74, 76-80, 82-88, and 90-93 to read as follows. A marked-up copy of those claims, showing the changes made thereto, is attached.

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1. (Amended) A method of classifying a digital image, said method comprising the steps of:

- segmenting said image into substantially homogeneous regions;
- processing said regions to provide a region adjacency graph for the digital image, said region adjacency graph representing adjacencies between said regions;
- analysing said region adjacency graph for predetermined patterns of regions; and
- classifying said digital image as one of a plurality of stereotypes according to each identified pattern.

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3. (Amended) The method according to claim 1, wherein said digital image is classified on the basis of a size of one or more regions of said digital image.

4. (Amended) The method according to claim 3, wherein said digital image is classified on the basis of an adjacency of said regions.

5. (Amended) The method according to claim 1, wherein said digital image is classified on the basis of semantic label content of said region adjacency graph.

A2 6. (Amended) The method according to claim 1, wherein said digital image is classified on the basis of a mean colour of one or more regions of said region adjacency graph.

7. (Amended) The method according to claim 1, wherein said plurality of stereotypes are stored in an association lookup table.

8. (Amended) The method according to claim 1, wherein said stereotypes are represented in a hierarchal arrangement.

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segmenting means for segmenting said image into substantially homogeneous regions;

A3 processing means for processing said regions to provide a region adjacency graph for the digital image, said region adjacency graph representing adjacencies between said regions;

analysing means for analysing said region adjacency graph for predetermined patterns of regions; and

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classification means for classifying said digital image as one of a plurality of stereotypes according to each identified pattern.

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61 } 20. (Amended) The apparatus according to claim 18, wherein said digital image is classified on the basis of a size of one or more regions of said digital image.

21. (Amended) The apparatus according to claim 20, wherein said digital image is classified on the basis of an adjacency of said regions.

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22. (Amended) The apparatus according to claim 18, wherein said digital image is classified on the basis of semantic label content of said region adjacency graph.

23. (Amended) The apparatus according to claim 18, wherein said digital image is classified on the basis of a mean colour of one or more regions of said digital image.

24. (Amended) The apparatus according to claim 18, wherein said plurality of stereotypes are stored in an association lookup table.

25. (Amended) The apparatus according to claim 18, wherein said stereotypes are represented in a hierarchal arrangement.

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A5 505  
617 27. (Amended) The apparatus according to claim 18, wherein said region adjacency graph is provided by analysing contextual data associated with one or more regions of said digital image.

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617 30. (Amended) The apparatus according to claim 18, further comprising metadata providing means for providing metadata associated with each digital image, wherein said metadata includes said stereotypes of each digital image.

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617 34. (Amended) The apparatus according to claim 18, wherein said digital image is stored in a database of digital images and wherein said classification can be used to retrieve said digital image from said database.

A7 35. (Amended) A computer program product comprising a computer readable medium having a computer program recorded for classifying a digital image, said computer program product comprising:

segmenting module for segmenting said image into substantially homogeneous regions;

processing module for processing said regions to provide a region adjacency graph for the digital image, said region adjacency graph representing adjacencies between said regions;

analysing module for analysing said region adjacency graph for predetermined patterns of regions; and

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classification module for classifying said digital image as one of a plurality of stereotypes according to each identified pattern.

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37. (Amended) The computer program product according to claim 35, wherein said digital image is classified on the basis of a size of one or more regions of said digital image.

38. (Amended) The computer program product according to claim 37, wherein said digital image is classified on the basis of an adjacency of said regions.

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39. (Amended) The computer program product according to claim 35, wherein said digital image is classified on the basis of semantic label content of said region adjacency graph.

40. (Amended) The computer program product according to claim 35, wherein said digital image is classified on the basis of a mean colour of one or more regions of said digital image.

41. (Amended) The computer program product according to claim 35, wherein said plurality of stereotypes are stored in an association lookup table.

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42. (Amended) The computer program product according to claim 35,  
wherein said stereotypes are represented in a hierarchal arrangement.

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52. (Amended) A method of classifying a digital image signal, said method comprising the steps of:

segmenting said image into substantially homogeneous regions;

processing said regions to provide a labelled region adjacency graph comprising at least one semantic label and representing at least part of the digital image signal;

providing a plurality of stereotype classifications, for each of a plurality of patterns, wherein each said pattern comprises:

(i) a set of labelled regions; or

(ii) a set of labelled regions and corresponding adjacency

information;

analysing said labelled region adjacency graph for the presence of predetermined patterns; and

for each pattern identified, selecting from said plurality of classifications a stereotype classification for the digital image.

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54. (Amended) The method according to claim 52, wherein said digital image is classified on the basis of semantic label content of said region adjacency graph.

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55. (Amended) The method according to claim 52, wherein a stereotype is assigned to the digital image signal on the basis of the adjacency of a set of regions with specified labels in the labelled region adjacency graph.

56. (Amended) The method according to claim 52, wherein a stereotype is assigned to the digital image signal on the basis of the size of one or more regions with a specified label in the labelled region adjacency graph.

57. (Amended) The method according to claim 52, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents the mean colour of one or more regions in the labelled region adjacency graph.

58. (Amended) The method according to claim 52, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents the mean colour texture of one or more regions in the labelled region adjacency graph.

59. (Amended) The method according to claim 52, wherein said plurality of stereotypes are stored in an association lookup table.

60. (Amended) The method according to claim 52, wherein said stereotypes are represented in an hierarchical arrangement.

555  
617 62. (Amended) The method according to claims 52, wherein each of said stereotypes is represented by one of a plurality of icons.

63. (Amended) The method according to claims 52, where said digital image is stored in a database of digital images and wherein said digital image can be retrieved from said database using a keyword representing a stereotype.

711 64. (Amended) The method according to claim 52, where said digital image is stored in a database of digital images and wherein said digital image can be retrieved from said database using an icon representing a stereotype.

65. (Amended) The method according to claim 52, where said digital image is stored in a database of digital images and wherein said digital image can be retrieved from said database using either a keyword or icon representing a generalisation, or broader version, of a stereotype.

66. (Amended) An apparatus for classifying a digital image signal, said apparatus comprising:  
segmenting means for segmenting said image into substantially homogeneous regions;



processing means for processing said regions to provide a labelled region adjacency graph comprising at least one semantic label and representing at least part of the digital image signal;

classification providing means for providing a plurality of stereotype classifications, for each of a plurality of patterns, wherein each said pattern comprises:

- (i) a set of labelled regions; or
- (ii) a set of labelled regions and corresponding adjacency

information; and

analysing means for analysing said labelled region adjacency graph for the presence of predetermined patterns, wherein for each pattern identified, said classification providing means provides a stereotype classification for the digital image selecting from said plurality of stereotype classifications.

68. (Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of the semantic label content of one or more regions in the labelled region adjacency graph.

69. (Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of the adjacency of a set of regions with specified labels in the labelled region adjacency graph.

70. (Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of the size of one or more regions with a specified label in the labelled region adjacency graph.

71. (Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents the mean colour of one or more regions in the labelled region adjacency graph.

72. (Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents the mean colour texture of one or more regions in the labelled region adjacency graph.

73. (Amended) The apparatus according to claim 66, wherein said plurality of stereotypes are stored in an association lookup table.

74. (Amended) The apparatus according to claim 66, wherein said stereotypes are represented in an hierarchical arrangement.

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76. (Amended) The apparatus according to claim 66, wherein each of said stereotypes is represented by one of a plurality of icons.

77. (Amended) The apparatus according to claim 66, where said digital image is stored in a database of digital images and wherein said digital image can be retrieved from said database using a keyword representing a stereotype.

78. (Amended) The apparatus according to claim 66, where said digital image is stored in a database of digital images and wherein said digital image can be retrieved from said database using an icon representing a stereotype.

79. (Amended) The apparatus according to claim 66, where said digital image is stored in a database of digital images and wherein said image can be retrieved from said database using either a keyword or icon representing a generalisation, or broader version, of a stereotype.

80. (Amended) A computer program product comprising a computer readable medium having a computer program recorded for classifying a digital image signal, said computer program product comprising:

segmenting module for segmenting said image into substantially homogenous regions;

processing module for processing said regions to provide a labelled region adjacency graph comprising at least one semantic label and representing at least part of the digital image signal;

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classification providing module for providing a plurality of stereotype classifications, for each of a plurality of patterns, wherein each said pattern comprises:

- (i) a set of labelled regions; or
- (ii) a set of labelled regions and corresponding adjacency

information; and

analysing module for analysing said labelled region adjacency graph for the presence of predetermined patterns, wherein for each pattern identified, said classification providing module provides a stereotype classification for the digital image selecting from said plurality of stereotype classifications.

82. (Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of the semantic label content of one or more regions in the labelled region adjacency graph.

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83. (Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of the adjacency of a set of regions with specified labels in the labelled region adjacency graph.

84. (Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of the size of one or more regions with a specified label in the labelled region adjacency graph.

85. (Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents the mean colour of one or more regions in the labelled region adjacency graph.

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86. (Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents the mean colour texture of one or more regions in the labelled region adjacency graph.

87. (Amended) The computer program product according to claim 80, wherein said plurality of stereotypes are stored in an association lookup table.

88. (Amended) The computer program product according to claim 80, wherein said stereotypes are represented in an hierarchical arrangement.

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90. (Amended) The computer program product according to claim 80, wherein each of said stereotypes is represented by one of a plurality of icons.

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91. (Amended) The computer program product according to claim 80, wherein said digital image is stored in a database of digital images and wherein said digital image can be retrieved using a keyword representing a stereotype.